PHILIP TOP

Education and Training:

Dordt College, Sioux Center, IA, Engineering, BSE 2002

Purdue University, West Lafayette, IN, Engineering, MSE 2004

Purdue University, West Lafayette, IN, Electrical engineering, PhD 2007

Research and Professional Experience:

PhD Research Purdue University
Research in power grid dynamics, anomaly detection, and data synchronization

Research Engineer Lawrence Livermore National Lab, Livermore CA. 2007-Present

Research in short range ultrawideband radar, mobile rugged high performance computer systems, GPS positioning and time-stamping, classification and detection, data intensive computing, data formatting and archiving, signal processing and inverse theory, power grid dynamics modeling, power grid regulation.

Visiting consultant at California Independent System Operator (CAISO) Summer 2011.

Publications:

Top, P.; Bell, M.R.; Coyle, E.; Wasynczuk, O., "Observing the Power Grid: Working Toward a More Intelligent, Efficient, and Reliable Smart Grid with Increasing User Visibility," *Signal Processing Magazine, IEEE* , vol.29, no.5, pp.24,32, Sept. 2012

C. Hoffmann, E. Swain, Y. Xu, T. Downar, L. Tsoukalas, **P. Top**, M. Senel, M. Bell, E. Coyle, B. Loop, O. Wasynczuk, and S. Meliopoulos. *DDDAS for Autonomic Interconnected Systems: The National Energy Infrastructure*. International Conference on Computational Science, May 2006

P. Top, V. Kohlhepp, F. Dowla, A Token Ring Protocol for Dynamic Ad-hoc Wireless Environments, US DOE Office of scientific & Technical Information. June 2006, Available at: www.osti.gov/energycitations/servlets/purl/885369-4g5sWU/885369.PDF

Philip Top, Watching the Grid, PhD Thesis, Purdue University 2007.

Top, P.; Dowla, F.; Gansemer, J., "A Dynamic Programming Algorithm for Name Matching," *Computational Intelligence and Data Mining, 2007. CIDM 2007. IEEE Symposium on* , vol., no., pp.547,551, April 2007

Philip Top, Maya Gokhale, Application Experiments: MPPA and FPGA, ERSA '09 Conference Proceedings, 2009

Craig Ulmer, Maya Gokhale , Brian Gallagher, Philip Top, Tina Eliassi-Rad, Massively parallel acceleration of a document-similarity classifier to detect
web attacks, J. Parallel Distrib. Comput. 71 (2011) 225–235

Synergistic Activities:

IEEE PES, CIS, SPS, and Computer societies

Graduate Advisors

Mark Bell, Purdue University, Advisor
Ed Coyle, Purdue University, Advisor
Oleg Wasynczuk, Purdue University, Advisor